

Amendments to the Claims

The listing of claims set forth below will replace all prior versions and listings of claims in the application.

1. (Canceled)
2. (Currently Amended) A vector system for producing infectious virus particles comprising two vectors, wherein the first vector comprises a nucleic acid encoding an AAV4 capsid protein having at least 90% homology to the amino acid sequence set forth in SEQ ID NO:4, ~~wherein the vector system produces AAV particles wherein the capsid protein can form a transducing AAV particle.~~
3. (Previously Presented) The vector system of claim 2, wherein the second vector comprises a pair of AAV inverted terminal repeats.
- 4-5 (Canceled)
6. (Previously Presented) The vector system according to claim 3, wherein the second vector comprises a pair of nucleic acids comprising AAV2 Rep protein binding sites.
7. (Previously Presented) The vector system according to claim 3, wherein the second vector comprises a pair of nucleic acids comprising AAV3 Rep protein binding sites.
8. (Previously Presented) The vector system according to claim 3, wherein the second vector comprises a pair of nucleic acids comprising AAV4 Rep protein binding sites.
9. (Previously Presented) The vector system according to claim 8, wherein the AAV4 Rep protein binding site has four "GAGC" repeats, wherein in the fourth nucleotide in the first two "GAGC" repeats is a T rather than a C.
10. (Previously Presented) The vector system according to claim 9, wherein the AAV4 Rep protein binding sites comprise the nucleotide sequence set forth in SEQ ID NO:6.
11. (Previously Presented) The vector system according to claim 9, wherein the AAV4 Rep protein binding sites comprise the nucleotide sequence set forth in SEQ ID NO:20.

ATTORNEY DOCKET NO. 14014.0252U3
Application No. 10/719,311

12. (Previously Presented) The vector system according to claim 3, wherein the second vector comprises a pair of nucleic acids comprising AAV5 Rep protein binding sites, and wherein the first vector further comprises a nucleic acid encoding an AAV5 Rep protein.

13. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV2 Rep protein.

14. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV3 Rep protein.

15. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV4 Rep protein.

16. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:2.

17. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has at least 95% homology with the amino acid sequence set forth in SEQ ID NO:2, wherein the vector system replicates.

18. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:8.

19. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has at least 95% homology with the amino acid sequence set forth in SEQ ID NO:8, wherein the vector system replicates.

20. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:9.

21. (Previously Presented) The vector system of claim 15 wherein the adeno-associated virus 4 Rep protein has at least 95% homology with the amino acid sequence set forth in SEQ ID NO:9, wherein the vector system replicates.

22. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:10.

ATTORNEY DOCKET NO. 14014.0252U3
Application No. 10/719,311

23. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has at least 95% homology with the amino acid sequence set forth in SEQ ID NO:10, wherein the vector system replicates.
24. (Original) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has the amino acid sequence set forth in SEQ ID NO:11.
25. (Previously Presented) The vector system of claim 15, wherein the adeno-associated virus 4 Rep protein has at least 95% homology with the amino acid sequence set forth in SEQ ID NO:11, wherein the vector system replicates.
26. (Original) The vector system of claim 3, wherein the first vector further comprises a nucleic acid encoding an AAV5 Rep protein.
27. (Previously Presented) The vector system according to claim 15, wherein the first vector further comprises a nucleic acid encoding an AAV2 capsid protein.
28. (Previously Presented) The vector system according to claim 15, wherein the first vector further comprises a nucleic acid encoding an AAV3 capsid protein.
29. (Canceled)
30. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:4.
31. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence defined by amino acids 438-601 set forth in SEQ ID NO:4.
32. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has at least 98% homology to the amino acid sequence set forth in SEQ ID NO:4, wherein the vector system produces AAV particles.
33. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:16.

ATTORNEY DOCKET NO. 14014.0252U3
Application No. 10/719,311

34. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has at least 98% homology to the amino acid sequence set forth in SEQ ID NO:16, wherein the vector system produces AAV particles.
35. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has the amino acid sequence set forth in SEQ ID NO:18.
36. (Previously Presented) The vector system of claim 2, wherein the adeno-associated virus 4 capsid protein has at least 98% homology to the amino acid sequence set forth in SEQ ID NO:18, wherein the vector system produces AAV particles.
37. (Canceled)
38. (Original) A vector system according to claim 3, wherein the second vector further comprises a promoter between the inverted terminal repeats.
39. (Original) A vector system according to claim 38, wherein the promoter is functionally linked to an exogenous nucleic acid.
40. (Original) The vector system according to claim 2, wherein the system comprises a series of vectors.
41. (Original) A method of making a recombinant particle for delivering an exogenous nucleic acid to a cell, comprising delivering to a cell having helper function the vectors of the vector system of claim 39.
42. (Original) The method of claim 41, wherein the helper function is provided by a helper virus.
43. (New) A vector system for producing transducing virus particles comprising two vectors, wherein the first vector comprises a nucleic acid encoding an AAV4 capsid protein having at least 90% homology to the amino acid sequence set forth in SEQ ID NO:4.